

**ABSTRACT**

Silicon oxide etching solutions containing the product of at least one bifluoride source  
5 compound dissolved in a solvent consisting of at least one carboxylic acid, and further  
comprising from about 0.5 to about 3 percent by solution weight of hydrofluoric acid and  
from about 1 to about 5 percent by solution weight of water, wherein the total concentration  
of bifluoride source compound is between about 1.25 and about 5.0 moles per kilogram of  
solvent. Methods for selectively removing silicon oxides and metal silicates from metal  
10 surfaces are also disclosed.